IT Initiative Supplement

February 25, 2010

I. Project Description

Project Title: SEARCHS Modernization
Brief Description of the Project Title: This project seeks the incremental modernization of the technology and platform of the State's legacy child support enforcement system. System for Enforcement and Recovery of Child Support (SEARCHS) is the State's current Child Support System. SEARCHS is a mainframe-based system used in the enforcement and recovery of child support, financial accounting, payments, and reporting. In the face of ever growing federal changes and aging technology, it is no longer cost-effective to enhance and maintain the current system.

Statewide Priority: 1
Agency Priority: 1
Estimated Completion Date: FY2015
IT Project Biennium: FY2014-15
Request Number:
Version:

Agency Number: 6901
Agency Name: Department of Public Health and Human Services
Program Number:
Program Name: Child Support Enforcement Division

A. Type of Project (check all that apply)

Enhancement
Replacement X
New
O&M

B. Type of System (check all that apply)

Mid-Tier
Mainframe
GIS
Web
Network
Desktop

II. Narrative

C. Executive Summary

The System for the Enforcement and Recovery of CHild Support (SEARCHS) is a mainframe system designed to manage child support recovery and enforcement in Montana. SEARCHS was developed in the late 1980's. The system does not meet the needs of the users, currently many of the functions are performed manually on spreadsheets outside the system by staff, leaving room for errors, inconsistency, and consuming valuable time. Currently changes necessary for Federal mandates are more difficult and require more time to complete due to the age of the system and the language it was written in. When large changes are requested, other projects or enhancement work must be stopped to meet the Federal requirements. Accordingly, it is time to consider a modernization effort that will incrementally update the current legacy system in an affordable manner over time.

In 2008, DPHHS performed a Request for Information (RFI) to determine an estimate on cost to build a new SEARCHS system. The RFI returned estimates ranging between $69 million and $90 million for a new system development, including the cost of the necessary staff, for the life of the project. Child Support is funded through a match of 66% federal funds and 34% state general funds.

Project Purpose and Objectives:

The goal of this project is the incremental modernization of SEARCHS. In addition to updating the technology of select system components, this project will demonstrate the feasibility of reengineering the current system into a modern web-based system that incorporates a relational database, rules engine, and service-oriented architecture. This modernization effort is in line with the Department's Enterprise Architecture vision for interoperability and data sharing across department systems and programs. Achieving this end goal incrementally lowers risk, controls cost, and provides real results in a progressive return on investment.

Modernization of the current system preserves the Department's investment of many years while providing a system with a modern web-based interface. However, a new graphical user interface that is placed on top of code that has grown brittle is not enough. Logic must be transformed to modern languages supported by modern databases, all of which must be efficient, flexible, and easily maintainable using resources and skill sets abundantly available today. The modernization of SEARCHS effort must begin by analyzing existing business processes and use cases and re-engineering them where appropriate. Additionally, SEARCHS needs to be fully analyzed and documented up front in order to capture the as-is system prior to creating the to-be system. Combining the information gained from this effort will provide the data necessary to move forward with a full transformation project.

Technical Implementation Approach:

Modernization will transform the COBOL, ADS, IDMS platform into a re-architected, web-enabled system utilizing a J2EE platform supported by an Oracle Database. The resulting subsystem will integrate the business requirements and functionality gleaned from the legacy system with the technical requirements of web-enabled systems. The modernized subsystem can easily incorporate newer COTS applications, Service-Oriented Architecture (SOA), , Oracle database, and modern programming platforms and languages such as J2EE.

Project Schedule and Milestones:

These are yet to be determined.

D. **Business and IT Problems Addressed**

The Department is moving away from monolithic and outdated legacy systems and toward its vision of web-based, people-friendly, and interoperable systems meeting and exceeding program needs. Enterprise architecture is the centerpiece of this shift from the present to the future. The modernization of a portion of the legacy SEARCHS to an Enterprise Architecture will allow the separate, standalone systems to communicate using exposed, shared services through a common architecture.

E. Alternative(s)

A full system replacement was considered.

Alternatives Considered:

Rationale for Selection of Particular Alternative:
N/A

F. Narrative Detail
The following federally mandated and essential services are provided by CSED and performed or supported through the SEARCHS system:

- Intake
- Locate
- Establishment of paternity
- Establishment of support orders including medical support orders
- Enforcement of current and past due support obligations, including child support, spousal support and medical support
- Review and modification of support orders
- Interstate case processing
- Collection, distribution and disbursement of support payments
- Reporting to Federal and State governments
- Paternity registry
- Central case registry
- Lien registry
- State directory of new hires

Funding for the CSEP in Montana is a responsibility shared by the federal government and the State of Montana. The amount of federal funding received changes based on the performance of CSED.

Due to the age of the SEARCHS system it is imperative that we find a cost-effective and modern solution to ensure we continue to meet or exceed our federal requirements and maximize our federal funding.

III. Costs

G. Estimated Cost of Project:

Estimated Cost of Project	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1. Personal Services - IT Staff							0
2. Personal Services - Non IT Staff							0
3. Contracted Services					750,000	750,000	1,500,000
4. ITSD Services							0
5. Hardware							0
6. Software							0
7. Telecommunications							0
8. Maintenance							0
9. Project Management							0
10. IV & V							0
11. Contingency							0
12. Training							0
13. Other							0
Total Estimated Costs	0	0	0	0	750,000	750,000	1,500,000

Total Funding:

IV. Funding

H. Funding

Total Funding

Fund	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1. 01100					655,609	655,609	1,311,218
2. 02381					283,822	283,822	567,644
3. 03598					1,873,225	1,873,225	3,746,450
4.							0
5.							0
6.							0
Total Estimated Costs	0	0	0	0	2,812,656	2,812,656	5,625,312

Cash/Bonded:

Bill Number:

V. Cost upon Completion

1. Operating Costs upon Completion

Estimated Cost of Project	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1. Personal Services - IT Staff							0
2. Personal Services - Non IT Staff							0
3. Contracted Services					750,000	750,000	1,500,000
4. ITSD Services							0
5. Hardware							0
6. Software							0
7. Telecommunications							0
8. Maintenance							0
9. Project Management							0
10. IV & V							0
11. Contingency							0
12. Training							0
13. Other							0
Total Estimated Costs	0	0	0	0	750,000	750,000	1,500,000

2. Funding Recap

Total Funding

Fund	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1. 01100					655,609	655,609	1,311,218
2. 02381					283,822	283,822	567,644
3. 03598					1,873,225	1,873,225	3,746,450
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Total Estimated Costs	0	0	0	0	2,812,656	2,812,656	5,625,312

V. Risk Assessment

A. Current IT Infrastructure Risks

1. Current application 10+ years old? _Yes__
   Date of last major upgrade? 1993

2. Current application is based on old technology? _Yes__
   If yes, what is the current hardware platform, operating system, and programming languages used to support the application?
   - Runs under z/OS 1.7 on the IBM z9 2096-R02 mainframe.
   - Online dialogs are written in ADS/O and the batch modules are written in MVS COBOL, DC COBOL, Culprit and CICS COBOL.
   - On-line access is accomplished with Ethernet methodology under Attachmate Extra version 6.4, 3270 emulation software (it is expected that this will be replaced with Blue Zone 3270 Emulation Software by the start of the fiscal year).
   - Personal workstations are networked using Microsoft Windows server 2008.

3. Is the agency not capable of maintaining the current application with internal technical staff? _Yes__

   If yes, who supports the application today? Northrop Grumman currently supports the SEARCHS system.

4. Other IT infrastructure risks? _No__
   If yes, provide further detail.

B. Current Business Risks

1. What are the risks to the state if the project is not adopted?
   a. Lack of available staff with skills in legacy technology
   b. Increased cost for enhancement, maintenance, and support
c. Decreasing ability to implement federal and state mandates

2. Does the current application meet current business requirements? __No__
   If "no", what specific business functions does the application lack?
   a. SEARCHS uses old technologies which do not follow the Montana IT Standards.
   b. Staff is required to handle some processes manually because corrections to the system have been too difficult or costly.

C. Project Risk Assessment

1. Describe any major obstacles to successful implementation and discuss how those obstacles will be mitigated.

Table H Risk Assessment

Description	Severity (H/M/L)	Probability of Occurrence (%)	Estimated Cost	Mitigation Strategy
COBOL – failure of event or processing	**H**	**90%**	**N/A**	**Use current LOE to research and identify the problem and to fix it. This is time consuming and an inefficient use of LOE.**
Cost of system residing on the mainframe	**H**	**90%**	**N/A**	**Pay the cost to ITSD for any needed changes. With the system being so old there are often required changes.**
Staff not fully trained to properly use the system due to numerous work arounds	**H**	**80%**	**N/A**	**Use current staff to train. Due to the complexity of the system and work-arounds this is an inefficient use of staff time.**